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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	151.842	149.268	121.748	-	121.748	126.946	127.114	129.008	131.383	Continuing	Continuing
675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>	36.819	27.328	34.744	-	34.744	38.877	22.828	30.666	6.839	Continuing	Continuing
675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>	32.630	29.751	37.874	-	37.874	35.274	32.270	31.245	40.171	Continuing	Continuing
675183: <i>Common Development (Airborne SIGINT Development - Common Development)</i>	41.799	59.048	38.855	-	38.855	44.541	58.892	42.322	61.792	Continuing	Continuing
675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>	22.596	15.083	3.608	-	3.608	0.996	4.066	5.968	7.063	Continuing	Continuing
675185: <i>Compass Bright (Airborne SIGINT Development - Compass Bright)</i>	11.363	6.022	6.169	-	6.169	6.312	6.470	6.667	6.784	Continuing	Continuing
675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	6.635	12.036	0.498	-	0.498	0.946	2.588	12.140	8.734	Continuing	Continuing

Note

The program funding includes reductions for Overhead efficiencies that are not intended to impact program content. The efficiencies reductions total \$2.455M in FY12.

Totals include funding for PRCP program number 375 "ASIP"

A. Mission Description and Budget Item Justification

(U) This PE provides signals intelligence (SIGINT) development efforts for all USAF airborne platforms. The funds in this PE are distributed among all Airborne SIGINT Enterprise (ASE) projects based on the development priorities established by the USAF SIGINT Capabilities Working Group (SCWG) in order to build a total SIGINT capability. As a result, the USAF will move funds between projects periodically to develop the highest priority projects in response to urgent warfighter needs. This PE will participate in the development, integration, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability. Modernization efforts include sensors for the platforms and their appropriate interfaces with the Air Force Distributed Common Ground System (AF DCGS). This approach will allow a synergistic development effort to be accomplished while developing a true Air Force-wide capability. This enterprise will use the Air Force Cryptologic Architecture (AFCA) for planning and decision-making and, in turn, employ the Joint Airborne SIGINT Architecture (JASA) open architecture standards to allow maximum ease of future upgrades and system interoperability. The primary goal of the ASE is to produce an architecture-based,

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY

3600: *Research, Development, Test & Evaluation, Air Force*
 BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0304260F: *Airborne SIGINT Enterprise (JMIP)*

capability-focused SIGINT investment strategy for the USAF. Funds in any project may be used to fund initiatives in other projects within this PE at the discretion of the SCWG. Funds in any project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	166.989	149.268	129.610	-	129.610
Current President's Budget	151.842	149.268	121.748	-	121.748
Total Adjustments	-15.147	-	-7.862	-	-7.862
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-0.697	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-14.450	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-7.862	-	-7.862

Change Summary Explanation

The program has been funded to the latest cost estimate, less efficiencies. The reduction for efficiencies are not intended to impact program content.

Additionally, the program was reduced for other AF priorities.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)	36.819	27.328	34.744	-	34.744	38.877	22.828	30.666	6.839	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the RC-135 SIGINT sensors and their associated air and ground components. Through extensive utilization of commercial-off-the-shelf (COTS)-based solutions to fielding of needed capabilities, it also incurs the need for continuous diminishing manufacturing sources integration efforts consistent with the COTS technology cycle. These efforts provide the required engineering for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations integrated into the various baseline modifications. These funds will be split between the RIVET JOINT, COMBAT SENT, and COBRA BALL programs. Funding reflects the SIGINT Capabilities Working Group (SCWG) priorities and the accomplishment of other ASE initiatives. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: SIGINT Development	36.819	27.328	34.744	-	34.744
Description: Non-Recurring Engineering (NRE) for the RC-135 SIGINT Systems. See Classified Budget Exhibits (PE 0305207F)					
FY 2010 Accomplishments: Efforts included air surveillance capabilities and antenna improvements on the RIVET JOINT and geolocation improvements for COMBAT SENT and COBRA BALL					
FY 2011 Plans: Continues improvements in ELINT capabilities, EAN 105 antenna integration efforts and software improvements					
FY 2012 Base Plans: Will continue SIGINT development efforts for the RC-135 fleet					
FY 2012 OCO Plans:					
Accomplishments/Planned Programs Subtotals	36.819	27.328	34.744	-	34.744

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: <i>PE 0305207F, Manned Reconnaissance Systems</i>	161.514	149.582	202.080	0.000	202.080	210.722	218.112	221.462	225.694	Continuing	Continuing

D. Acquisition Strategy

(U) Aircraft, aircraft sensor systems, and associated ground support system modifications planned include the procurement, fielding and logistical support for future RIVET JOINT, COMBAT SENT and COBRA BALL baseline configurations. Development and integration managed by the Big Safari Systems Group; they employ evolutionary acquisition approaches to field incremental capability improvements.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>				PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>						

Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SIGINT Sensor Development and Integration	SS/Various	L3COM:Greenville, TX	169.605	27.328	Jan 2011	34.744	Jan 2012	-		34.744	Continuing	Continuing	TBD
Subtotal			169.605	27.328		34.744		-		34.744			

Remarks Above contract method/type will be CPFF and FFP													
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Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			169.605	27.328		34.744		-		34.744			

Remarks													
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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development of RIVET JOINT mission sensors	1	2010	4	2016
Development of COMBAT SENT mission sensors	1	2010	4	2016
Development of COBRA BALL mission sensors	1	2010	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675182: MQ-1/MQ-9 (Airborne SIGINT Development - Predator)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675182: MQ-1/MQ-9 (Airborne SIGINT Development - Predator)	32.630	29.751	37.874	-	37.874	35.274	32.270	31.245	40.171	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the MQ-1/MQ-9 SIGINT sensors and their associated air and ground components. This is an RTD&E effort to integrate SIGINT capability on to the MQ-1/MQ-9 platforms. The sensors shall be capable of collecting technical data and geolocating signals of interest and providing sensor data to a workstation. The integration effort shall include the use of existing sensor suites to the maximum extent possible to minimize design costs and reduce development time lines. Design efforts specific to the Predator or Reaper systems may include, but not be limited to, antennas, EMI reduction, encryption techniques, and changes to the aircraft, ground station, data link, and simulator necessary to accommodate a SIGINT payload and its data throughput. Funding will begin efforts on antennas, receivers, processors, software development, aircraft integration and ground station upgrades to allow a persistent reconnaissance, surveillance, targeting, and acquisition capability against mission specific threats. Development of a networked capability to other SIGINT platforms will also be initiated. In accordance with an evolutionary acquisition strategy, a series of Airborne Signals Intellice Payload (ASIP) capability improvements will begin preliminary design activities to support software and hardware upgrades in FY11. These upgrades are designed to exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group (SCWG). This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Compatability improvements will be inserted into the ASIP Family of Sensors through individual development efforts that exploit signals of interest identified as Service priorities by the AF SCWG. Blue Moon development efforts will also begin in FY12. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: MQ SIGINT Development	32.630	29.751	37.874	-	37.874
Description: Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (MQ-1 and MQ-9) using an open system architecture.					
FY 2010 Accomplishments: Completed Factory Acceptance Test (FAT) for the ASIP-1C program and then transfered the ASIP-1C assets to the ASIP-2C program (Decision to stop the ASIP-1C program after FAT was approved by OSD in Oct 09).					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>		PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Began developing the ASIP-2C prototype for the MQ-9 and prepare to conduct demo flights of the prototype sensor in 2Q/3QFY11.</p> <p><i>FY 2011 Plans:</i> Integrate and demonstrate the ASIP-2C on a surrogate MQ-9 and start the EMD phase in 2Q FY12. Complete the prototype and pod and continue flight demo.</p> <p><i>FY 2012 Base Plans:</i> Will complete the CDR, MS B & C, and FAT. ASIP 2C will begin the EMD phase. Blue Moon development effort will begin.</p> <p><i>FY 2012 OCO Plans:</i></p>					
Accomplishments/Planned Programs Subtotals	32.630	29.751	37.874	-	37.874

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APAF: <i>PE 0205219F, MQ-9</i>	0.000	18.766	54.952	0.000	54.952	127.774	85.388	73.426	74.743	Continuing	Continuing

D. Acquisition Strategy
(U) SIGINT capabilities will be integrated onto these platforms using an evolutionary acquisition approach and a sole source contract.

E. Performance Metrics
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675182: MQ-1/MQ-9 (Airborne SIGINT Development - Predator)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SIGINT Sensor Integration and Test	Various	General Atomics:San Diego, CA	3.201	6.024	Jan 2011	5.851	Jan 2012	-		5.851	11.000	26.076	26.076
SIGINT Sensors Development	SS/CPIF	Northrop Grumman ESL:San Jose, CA	60.162	22.140	Jan 2011	19.523	Jan 2012	-		19.523	11.000	112.825	112.825
Blue Moon	TBD	TBD:TBD,	-	-		8.000	Jan 2012	-		8.000	1.000	9.000	9.000
Subtotal			63.363	28.164		33.374		-		33.374	23.000	147.901	147.901
Remarks Cost to complete is for the intial ASIP 2C variant. Upgrades will continue for this program throughout the FYDP													
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management, Various Integration Efforts, & Flight Test	Various	Not specified.:	5.933	1.587	Jan 2011	4.500	Jan 2012	-		4.500	Continuing	Continuing	TBD
Subtotal			5.933	1.587		4.500		-		4.500			
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>			PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>					
	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	69.296	29.751		37.874		-		37.874			
Remarks											

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ASIP-2C Development	1	2010	1	2014
ASIP 2C MS B	1	2012	1	2012
ASIP 2C MS C	3	2012	3	2012
ASIP 2C Flight Test and IOT&E	1	2013	2	2014
ASIP 2C IOC	4	2013	4	2013
ASIP 2C LRIP/Production and Fielding	4	2012	4	2016
ASIP 2C Upgrades	2	2014	4	2016
Blue Moon Development	1	2012	2	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675183: Common Development (Airborne SIGINT Development - Common Development)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675183: Common Development (Airborne SIGINT Development - Common Development)	41.799	59.048	38.855	-	38.855	44.541	58.892	42.322	61.792	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note											
(U) This project supports the development of the Airborne Signals Intelligence Payload (ASIP) sensors for use on multiple platforms as well as projects common to the ASE PE overall to include, but not limited to: Air Force Cryptologic Architecture (AFCA) maintenance, modeling and simulation efforts and NATO Signals Intelligence (SIGINT) efforts.											
A. Mission Description and Budget Item Justification											
(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the insertion of new capabilities integrated into the ASIP sensors and their associated air and ground components that will be used on/by more than one platform. The common development SIGINT project also supports development of new sensors capabilities and identifies suitable replacements for components affected by diminishing manufacturing sources. New capabilities are developed by separate projects. The current sensors being developed are the ASIP (which has completed developmental testing on the U-2 and is being tested on the Global Hawk (RQ-4)), and the scalable ASIP payloads for the MQ-1 (ASIP-1C) and MQ-9 (ASIP-2C). The AF has descoped the SIGINT program for the MQ-1 and transferred the Hardware/Software (HW/SW) to the SIGINT program for the MQ-9 after completion of the factory acceptance testing (FAT). The systems' open architecture and Joint Airborne SIGINT Architecture (JASA) compliant design supports streamlined integration of ASIP onto additional ISR platforms. The ASIP Family of Systems (FoS) will design and build a common/scalable SIGINT system designed for maximum coverage of the electromagnetic spectrum through the use of an integrated high and low band system. ASIP has delivered developmental units for integration and test on both the RQ-4 and U-2. Baseline ASIP is now operational on the U-2. ASIP-2C will develop a SIGINT sensor for the MQ-9. Capability improvements will be inserted into the ASIP family of sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group. This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Compatability improvements will be inserted into the ASIP Family of Sensors through individual development efforts that exploit signals of interest identified as Service priorities by the AF SCWG. Sensors will be integrated and tested on the various platforms as funding permits. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.											
(U) Some parts of Baseline ASIP are funded within the Common Development project of this PE and some parts are funded within the RQ-4 Global Hawk project (675184). Parts that have applicability to other platforms such as the U-2 or MQ-9 are funded in Common Development project.											
(U) The Baseline ASIP sensor production will be in the RQ-4 PE (35220F).											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development			R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)			PROJECT 675183: Common Development (Airborne SIGINT Development - Common Development)					
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Title: SIGINT Development Description: Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (U-2, Global Hawk, MQ-1 and MQ-9) using an open system architecture. FY 2010 Accomplishments: Completed the development and testing of the ASIP on the Global Hawk. Supported preparation for the ASIP Global Hawk Initial Operational and Test Evaluation (IOT&E). Began ASIP testing with the upgraded AF-DCGS software to support multi-ship capabilities. FY 2011 Plans: Complete ASIP Global Hawk Initial Operational and Test Evaluation (IOT&E). Complete analysis of all open/future problems associated with the development and IOT&E flights. Fix major deficiencies found during the Global Hawk tests. Start the Upgrades program to begin development of new signals capabilities to be inserted into the current ASIP sensors. FY 2012 Base Plans: Continue new signal capabilities and enhancements for the ASIP sensor. Details are classified FY 2012 OCO Plans:						41.799	59.048	38.855	-	38.855	
Accomplishments/Planned Programs Subtotals						41.799	59.048	38.855	-	38.855	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0305220F: RQ-4 Sensor Integration- Sensor Development (APAF)	800.212	859.244	747.978	0.000	747.978	603.846	551.881	456.596	351.681	Continuing	Continuing
D. Acquisition Strategy											
Signals Intelligence capabilities will be developed and integrated onto various platforms using an evolutionary acquisition approach.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675183: Common Development (Airborne SIGINT Development - Common Development)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ASIP Baseline Sensor Development/Integration	SS/Various	Northrop Grumman:San Jose, CA	152.556	2.657	Jan 2011	-		-		-	0.000	155.213	155.213
ASIP Baseline Development/Integration (AFDCGS Ground Control Processor Integration)	SS/CPIF	Lockheed Martin Astronautics:Denver, CO	20.012	2.789	Jan 2011	-		-		-	0.000	22.801	22.801
ASIP Baseline Development/Integration (AFDCGS Deployable Ground Intercept Facility Integration)	SS/CPIF	Raytheon:Falls Church, VA	22.328	2.789	Jan 2011	-		-		-	0.000	25.117	25.117
ASIP Upgrades Development	SS/CPIF	Northrop Grumman:San Jose, CA	-	46.617	Jan 2011	32.855	Jan 2012	-		32.855	Continuing	Continuing	TBD
ASIP-1C Development	SS/CPIF	Northrop Grumman:San Jose, CA	39.766	-		-		-		-	0.000	39.766	39.766
ASIP-1C Integration	SS/CPFF	General Atomic Aeronautical Systems, Inc.:San Diego, CA	0.266	-		-		-		-	0.000	0.266	0.266
High Band System	SS/CPAF	Northrop Grumman:San Jose, CA	4.874	-		-		-		-	0.000	4.874	4.874
Various SIGINT Efforts	Various	Northrop Grumman:San Jose, CA	7.258	2.800	Jan 2011	3.000	Jan 2012	-		3.000	Continuing	Continuing	TBD
Subtotal			247.060	57.652		35.855		-		35.855			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
(U) Management, Various Integration Efforts, & Flight Test	Various	TBD:TBD,	37.867	1.396	Jan 2011	3.000		-		3.000	Continuing	Continuing	TBD
Subtotal			37.867	1.396		3.000		-		3.000			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>				PROJECT 675183: <i>Common Development (Airborne SIGINT Development - Common Development)</i>					

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			284.927	59.048		38.855		-		38.855			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675183: Common Development (Airborne SIGINT Development - Common Development)

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675183: Common Development (Airborne SIGINT Development - Common Development)

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675183: <i>Common Development (Airborne SIGINT Development - Common Development)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ASIP GH Force Development Evaluation	1	2010	3	2010
ASIP GH Flight Test	1	2010	3	2010
ASIP U-2 IOC	2	2010	3	2010
ASIP IOT&E	1	2011	2	2011
ASIP GH IOC	4	2012	4	2012
U-2/GH Production and Fielding	1	2010	4	2016
ASIP Upgrades	4	2010	4	2014

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675184: RQ-4 (Airborne SIGINT Development - Global Hawk)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675184: RQ-4 (Airborne SIGINT Development - Global Hawk)	22.596	15.083	3.608	-	3.608	0.996	4.066	5.968	7.063	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) This project supports sensor integration and test, flight test, design studies, engineering analysis and non-recurring engineering of the air and ground components for the Global Hawk SIGINT sensors. Also identifies suitable replacements for components affected by diminishing manufacturing sources. This project provides the warfighter with a near-term, increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Capability improvements will be inserted into the Airborne Signals Intelligence Program (ASIP) family of sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group. Funding includes completion of developmental logistics tasks associated with the design, development, and integration of ASIP and the ASIP Depot standup. Additional requirements include the Logistics Support Analysis (LSA) Taskings which consists of design and development of support equipment, technical orders, training courses/aids/devices, and shipping containers common to ASIP for U-2 and Global Hawk. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

(U) The Baseline ASIP sensor is an ACAT 1D program. Totals include funding for the PRCP Project Number 375, Baseline ASIP. Baseline ASIP completes its development in the ASE PE in FY 2011. Projects 675183 (Common Development) and 675184 (RQ-4) include development funds for this sensor. Prior year estimate for total development cost was \$508M and this is still valid. \$19M will be spent in FY 11 in the ASE PE to complete development. Production will be in the RQ-4 PE (0305220F).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: RQ-4 SIGINT	22.596	15.083	3.608	-	3.608
Description: Design, develop, test SIGINT capabilities for ASIP sensors, support equipment, technical orders, training, shipping containers, and support the ASIP depot stand-up.					
FY 2010 Accomplishments: Completed the development and testing of the ASIP on the Global Hawk. Continued the Logistics contract effort, to include awarding Phase 2 of the Logistics Task contract. Delivered additional Flight Line Support Equipment and peculiar support equipment and shipping containers. Developed Type 1 operator and maintenance training courses. Identified and purchased diminishing manufacturing source items.					
FY 2011 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Complete ASIP Global Hawk Initial Operational and Test Evaluation (IOT&E). Continue the Logistics contract effort, including updating technical data and support equipment. Support the ASIP depot standup. Correct logistical deficiencies found in the Global Hawk Initial Operational and Test Evaluation (IOT&E). Start the Upgrades Program to begin the development of new signal capabilities to be inserted into the correct ASIP sensors. <i>FY 2012 Base Plans:</i> Will continue the logistics efforts, including updating technical data and support equipment. Support the ASIP depot stand-up. Correct logistic deficiencies found during GH IOT&E. Continue new signal capabilities and enhancement development. <i>FY 2012 OCO Plans:</i>					
Accomplishments/Planned Programs Subtotals	22.596	15.083	3.608	-	3.608

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APAF: <i>PE 0305220F, RQ-4 Sensor Integration - Sensor Development</i>	800.212	859.244	747.978	0.000	747.978	603.846	551.881	456.596	351.681	Continuing	Continuing

D. Acquisition Strategy

(U) SIGINT capabilities will be integrated on to this platform using an Evolutionary Acquisition approach.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675184: RQ-4 (Airborne SIGINT Development - Global Hawk)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ASIP Baseline Development	SS/Various	Northrop Grumman Mission Sys:San Jose, CA	51.789	3.000	Jan 2011	-		-		-	Continuing	Continuing	TBD
ASIP Upgrades Development	TBD	Northrop Grumman Mission Sys:San Jose, CA	-	0.122	Nov 2010	2.710	Jan 2012	-		2.710	Continuing	Continuing	TBD
ASIP LSA Taskings	Various	Northrop Grumman Mission Sys:San Jose, CA	14.160	11.961	Jan 2011	0.598	Jan 2012	-		0.598	Continuing	Continuing	TBD
Subtotal			65.949	15.083		3.308		-		3.308			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management, Various Integration Efforts, & Flight Test	Various	TBD:TBD,	0.550	-		0.300		-		0.300	Continuing	Continuing	TBD
Subtotal			0.550	-		0.300		-		0.300			
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force								DATE: February 2011						
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675184: RQ-4 (Airborne SIGINT Development - Global Hawk)						
				Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals				66.499	15.083		3.608		-		3.608			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)	PROJECT 675184: RQ-4 (Airborne SIGINT Development - Global Hawk)

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Baseline ASIP RQ-4 Integration and Test	1	2010	2	2011
RQ-4 ASIP Logistics Efforts	1	2010	4	2012
RQ-4 ASIP New Signals Integration	3	2012	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675185: Compass Bright (Airborne SIGINT Development - Compass Bright)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675185: Compass Bright (Airborne SIGINT Development - Compass Bright)	11.363	6.022	6.169	-	6.169	6.312	6.470	6.667	6.784	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
(U) The COMPASS BRIGHT program develops, demonstrates, and rapidly transitions advanced Air Force-specific SIGINT and Radio Frequency (RF) measurement and signature intelligence (MASINT) capabilities against emerging and future target signals. It is the only USAF program that pursues SIGINT and RF MASINT technology transition. The COMPASS BRIGHT program objective is to develop technologies for application in SIGINT and RF MASINT systems/subsystems. Acquisition and production of these developed technologies will occur within the appropriate platform programs. COMPASS BRIGHT projects are selected through a data call process whereby the USAF evaluates proposals from the labs and industry to select those projects that are most promising. This process is completed the year prior to award. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: SIGINT Tech Development							11.363	6.022	6.169	-	6.169
Description: Develops projects in the Signals Intelligence and Radio Frequency Measurement & Signature Intelligence areas for transition to platforms.											
FY 2010 Accomplishments: Initiated, continued or completed various SIGINT projects to include search and intercept improvements											
FY 2011 Plans: Initiate, continue or complete various SIGINT projects to include search and intercept improvements											
FY 2012 Base Plans: Will initiate, continue or complete various SIGINT projects to include search and intercept improvements											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							11.363	6.022	6.169	-	6.169

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675185: <i>Compass Bright (Airborne SIGINT Development - Compass Bright)</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

(U) Ongoing COMPASS BRIGHT technology development and demonstration contracts will continue through existing laboratory relationships and other existing contractual vehicles, with future development projects emphasizing full and open competition.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675185: Compass Bright (Airborne SIGINT Development - Compass Bright)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various	Multiple:Various,	19.928	5.336	Oct 2010	5.476	Oct 2011	-		5.476	Continuing	Continuing	TBD
Subtotal			19.928	5.336		5.476		-		5.476			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ASC/WI (ISR and SOF Directorate)	Various	TBD:TBD,	1.520	0.686	Oct 2010	0.693	Oct 2011	-		0.693	Continuing	Continuing	TBD
Subtotal			1.520	0.686		0.693		-		0.693			
Project Cost Totals			21.448	6.022		6.169		-		6.169			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675185: Compass Bright (Airborne SIGINT Development - Compass Bright)

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675185: Compass Bright (Airborne SIGINT Development - Compass Bright)

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

3600: *Research, Development, Test & Evaluation, Air Force*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0304260F: *Airborne SIGINT Enterprise (JMIP)*

PROJECT

675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Audio Speech Privacy ID Detector	1	2010	3	2011
Rio Raton Digital Receiver	1	2010	2	2011
Rapid Audio Batch Toolkit (RABT)	1	2010	2	2012
Auto Noise Profile	1	2010	3	2011
Advanced Wideband Digital ELINT	1	2010	3	2011
Cross Cueing	1	2010	3	2011
Spectral Search	1	2010	4	2011
Adv Confidence Measures	1	2010	2	2012
Mobile Processing	1	2010	2	2012
LPI Search and Copy	1	2010	2	2012
Device Enumeration (IMIE)	1	2010	2	2012
Optimum Audio Extraction	2	2010	3	2011
Black Crow II	4	2010	4	2012
Hands Free Audio Processing	4	2010	2	2012
Single Aircraft Geolocation	4	2010	4	2012
Cross INT Speaker ID	4	2010	1	2013
GEO	1	2010	1	2011
Multi-Channel CAP for Digital SIGINT	1	2010	1	2011
Digital Wideband Pulse Receiver	1	2010	3	2011
Speaker Search	1	2010	2	2011
SAP GEO	4	2010	4	2012
Future SIGINT Projects	2	2012	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>				675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	6.635	12.036	0.498	-	0.498	0.946	2.588	12.140	8.734	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) This project supports special SIGINT studies as well as the development and integration of advanced SIGINT capabilities on Senior Scout, Liberty Project Aircraft (MC-12W), NCCT SIGINT projects approved by the SCWG, and other special projects. Through extensive utilization of COTS-based solutions to fielding of needed capabilities, it also incurs the need for continuous diminishing manufacturing sources integration efforts consistent with the COTS technology cycle. Senior Scout development efforts will include antenna improvements, sensitivity upgrades, and radio frequency distribution upgrades. Additionally, development will begin to allow this platform to network with other SIGINT assets to increase collection accuracy. This project provides the warfighter with a near term combat capability with increased capability improvements accomplished as soon as technology and risk achieve satisfactory levels. Sensors will be integrated and tested on various platforms as funding permits. Budget Activity Justification: This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: SIGINT Development	6.635	12.036	0.498	-	0.498
Description: Develop SIGINT capabilities for special programs such as SENIOR SCOUT, Liberty Project Aircraft, Network Centric Collaborative Targeting (NCCT) projects, small UAVs and others.					
FY 2010 Accomplishments: Develop various SIGINT capabilities for integration.					
FY 2011 Plans: Develop various SIGINT capabilities for integration.					
FY 2012 Base Plans: Develop various SIGINT capabilities for integration.					
FY 2012 OCO Plans: Develop various SIGINT capabilities for integration.					
Accomplishments/Planned Programs Subtotals	6.635	12.036	0.498	-	0.498

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0503115F: <i>Tactical Cryptologic Units ANG</i>	18.901	3.963	3.593	0.000	3.593	7.163	6.440	6.617	6.736	Continuing	Continuing

D. Acquisition Strategy

(U) Signals Intelligence (SIGINT) capabilities will be integrated on to various classified platforms using an Evolutionary Acquisition approach.

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675186: Special Programs (Airborne SIGINT Development - Special Platforms)						
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
SIGINT Sensor Development-1	SS/Various	Lockheed Martin IS&GS:Denver, CO	5.756	1.100	Oct 2010	-		-		-	0.000	6.856	6.856	
SIGINT Sensor Development-2	SS/Various	Zeta Associates:Fairfax VA,	2.882	1.513	Oct 2010	0.015	Oct 2010	-		0.015	Continuing	Continuing	TBD	
Low Level Signal Detection	SS/Various	Lockheed Martin IS&GS:Denver, CO	2.849	1.812	Dec 2010	0.363	Nov 2011	-		0.363	Continuing	Continuing	TBD	
Wideband Receivers	SS/Various	Lockheed Martin IS&GS:Denver, CO	1.664	3.000	Dec 2010	-		-		-	0.000	4.664	4.664	
Sensor Fusion/Dissemination	SS/Various	Lockheed Martin IS&GS:Denver, CO	1.249	2.030	Jan 2011	0.007	Jan 2011	-		0.007	0.000	3.286	3.286	
SIGINT NCCT Network Centric Collaborative Targeting	SS/Various	L-3 ComCept:Rockwall, TX	6.482	-		-		-		-	0.000	6.482	6.482	
Sensor Development-3	SS/FFP	VaST:Warrenton, VA	0.182	2.130	Nov 2010	-		-		-	0.000	2.312	2.312	
Subtotal			21.064	11.585		0.385		-		0.385				
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>				PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>					

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	TBD:TBD,	0.428	0.451	Jan 2011	0.113	Jan 2012	-		0.113	Continuing	Continuing	TBD
Subtotal			0.428	0.451		0.113		-		0.113			
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			21.492	12.036		0.498		-		0.498			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SIGINT Sensor Development 1	1	2010	4	2011
SIGINT Sensor Development 2	1	2010	4	2016
Low Level Signal Detection	1	2010	4	2016
Wideband Receiver	1	2010	4	2011
Sensor Fusion/Dissemination	1	2010	4	2012
SIGINT NCCT	1	2010	4	2010
SIGINT Sensor Development 3	1	2010	4	2011

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